

**Notice of Allowability**

Application No.

09/502,718

Examiner

Chau Nguyen

Applicant(s)

CHERKASOVA ET AL.

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/27/2004.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 11 February 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### REASONS FOR ALLOWANCE

1. The following is a statement of reasons for the indication of allowable subject matter:

In interpreting the claims in light of the specification and applicant's arguments, the Examiner finds the claimed invention is patentably distinct from the prior art of record.

The prior art of record, Yu, US Patent No. 6,351,775, DeBettencourt et al (DeBettencourt), US Patent No. 6,279,011, and Desai, Patent No. 6,434,608, teach the invention substantially as claimed.

Yu discloses a cluster server including a plurality of servers, requesters nodes request services from the server cluster via a network, denote  $SA(j)$  as the number of requests for object classed assigned to server  $j$ , and meta information with requested objects can also be applied to a conventional DNS routing in the Internet to improve load balancing in a server cluster (Abstract, col. 6, lines 31-36, col. 7, lines 18-37, col. 9, lines 27-33). Yu's invention also can be adapted to a hierarchical mapping of object identifiers (URL) to the group of servers in the cluster (col. 11, line 54 – col. 12, line 63).

DeBettencourt discloses a traffic management subsystem for distributing web page requests to the web servers including a monitor for collecting and storing information related to the requests for web pages, the monitor includes a manager receiving web page request information from one or more agents each in communication with at least one of the web servers, and the request information is sent

to the manager at a periodic time interval, for example, every 30 seconds (Abstract, col. 1, line 66 – col. 2, line 55, and col. 10, lines 1-16). DeBettencourt also discloses assigning a value to each web server which is a relative evaluation of the load capacity of that web server (the difference in the sum of said measured computational resources is within a first predetermined error value) (col. 22, line 37 – col. 23, line 33).

Desai discloses tracking request objects in a table in which it tracks objects for which at least one cache miss has occurred, and an object is only cached if it has been requested at least twice (Desai, col. 3, lines 14-44).

Claim 1 is allowed because the prior art of record does not expressly disclose alone or in combination “grouping the sites into N groups, each group being assigned to a corresponding one of the server nodes such that for each pair of groups, a difference in the sum of said measured computational resources is within a first predetermined error value”. Examiner finds the specification in pages 6-7 to be persuasive since applicant describes sites are partitioned into groups, each of which is assigned to a node, such that the most popular files of all sites are distributed equally among all the nodes or the sum of sizes of the popular files includes in each group is nearly the same, and also the computational workload imposed on each node is nearly the same.

2. The dependent claims 2-12 further limit independent claim 1. Therefore, claims 2-12 are considered allowable for the same reasons set forth for claims 1.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (703) 305-4639. The Examiner can normally be reached on Monday-Friday from 8:00 am to 6:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (703) 305-9792.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 872-9306 (After Final Communications only)

(703) 872-9306 (Official Communications)

(703) 746-7240 (for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

Chau Nguyen  
Patent Examiner  
Art Unit 2176

  
JOSEPH H. FEILD  
PRIMARY EXAMINER